HIT1213

Silicon NPN Epitaxial

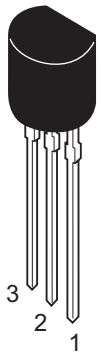
REJ03G1609-0100
Rev.1.00
Nov 28, 2007

Features

- Low frequency power amplifier
- Complementary pair with HIT673

Outline

RENESAS Package code: PRSS0003DA-A
(Package name: TO-92 (1))



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	50	V
Collector to emitter voltage	V_{CEO}	50	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	0.5	A
Collector peak current	$I_{C\ (peak)}$ Note	1.0	A
Collector power dissipation	P_C	0.4	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Note: PW ≤ 10 ms, Duty cycle ≤ 20%

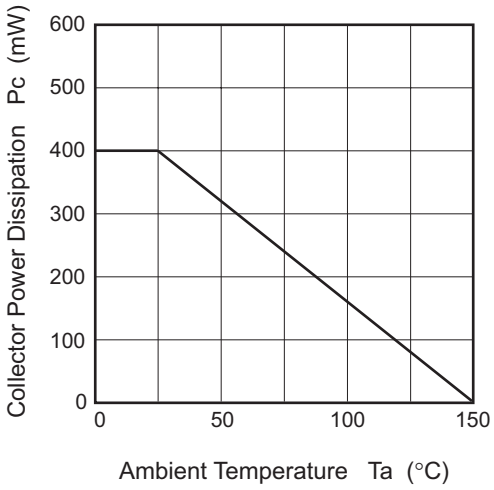
Electrical Characteristics

(Ta = 25°C)

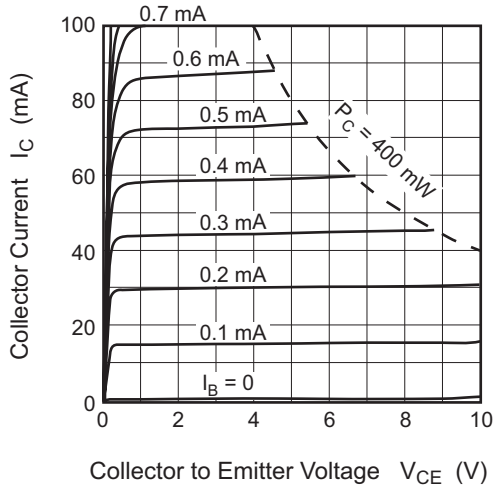
Item	Symbol	Min.	Typ	Max.	Unit	Test Conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	50	—	—	V	I_C = 10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	50	—	—	V	I_C = 0.1 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	I_E = 10 µA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	500	nA	V_{CB} = 50 V, I_E = 0
Emitter cutoff current	I_{EBO}	—	—	500	nA	V_{EB} = 5 V
DC current transfer ratio	h_{FE1}	60	—	320	—	V_{CE} = 3 V, I_C = 10 mA
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.6	V	I_C = 150 mA, I_B = 15 mA
Base to emitter voltage	$V_{BE(on)}$	—	—	1.2	V	V_{CE} = 3 V, I_C = 10 mA

Main Characteristics

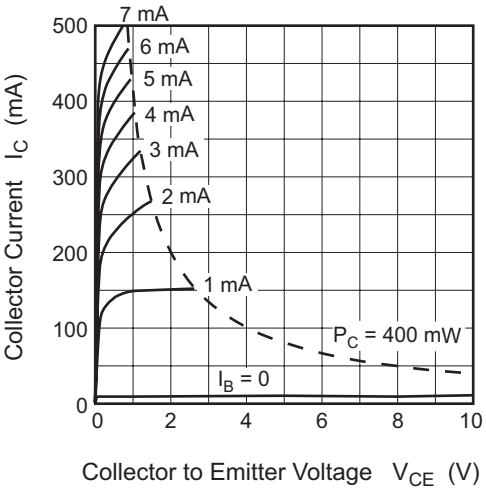
Maximum Collector Dissipation Curve



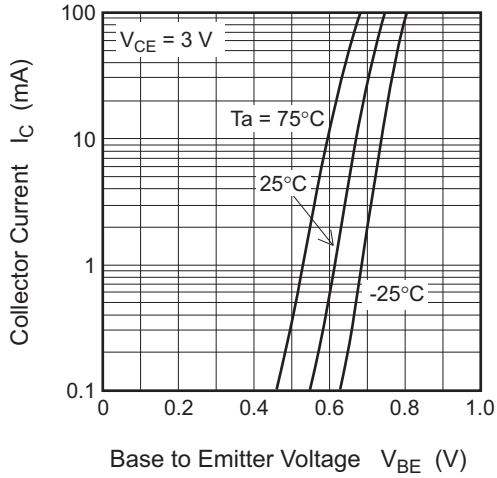
Typical Output Characteristics (1)



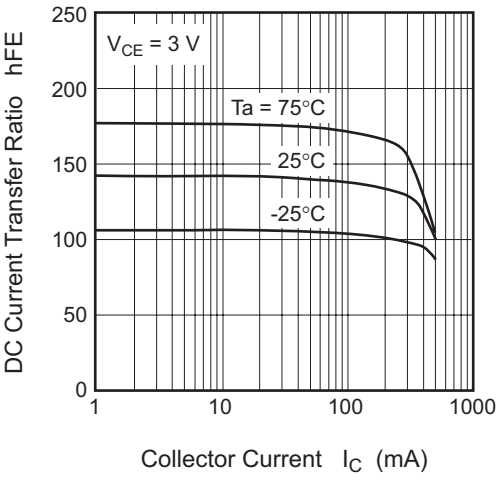
Typical Output Characteristics (2)



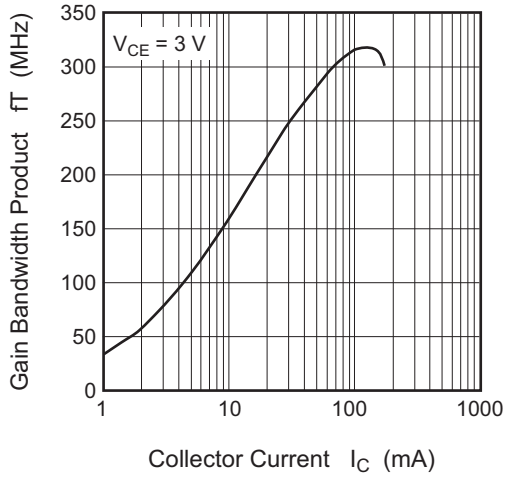
Typical Transfer Characteristics



DC Current Transfer Ratio vs. Collector Current



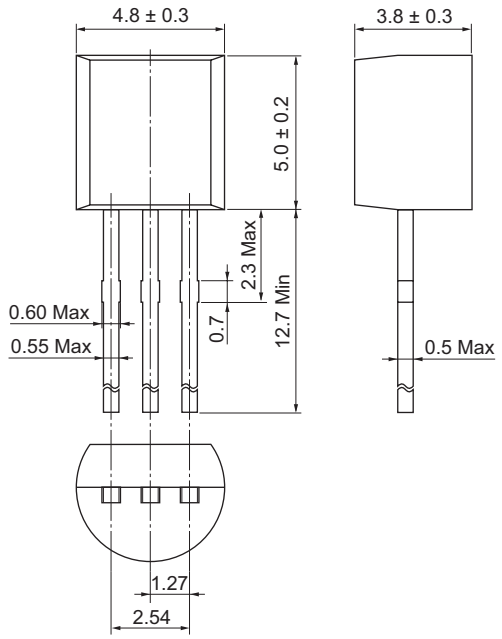
Gain Bandwidth Product vs. Collector Current



Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
TO-92(1)	SC-43A	PRSS0003DA-A	TO-92(1) / TO-92(1)V	0.25g

Unit: mm



Ordering Information

Part Name	Quantity	Shipping Container
HIT1213-EQ	2500 pcs.	Bulk, Vinyl Bag
HIT1213-TZ-EQ	2500 pcs.	Hold Box, Radial Taping

Note: This product is designed for consumer use and not for automotive.

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